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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,842	01/07/2002	Ulrich Posanski	4-20017D	3749

1095 7590 09/23/2003

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EXAMINER

WANG, SHENGJUN

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 09/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/040,842

Applicant(s)

POSANSKI, ULRICH

Examiner

Shengjun Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Receipt of applicants' amendments and remarks submitted July 15, 2003 is acknowledged.

Claim Rejections 35 U.S.C. § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 23-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyama et al. (U.S. Patent 5,576,025, AH) in view of Hauer et al. (U.S. Patent 5,342,625 AL), and in further view of Reggio et al. (US 4,379,169).

Akiyama et al. teaches a pharmaceutical composition of sparingly soluble drug that increase drug bioavailability of the drug. The carrier compositions work to increase residence time in the GI track. See the abstract. More specifically, the patented composition comprises oil, such as soybean oil, castor oil, rapeseed oil, etc. See column 5, lines 35-52, and optionally, a combination of two or more surfactants having different HLB values and optimized results may be obtained by varying the combination of surfactants with different HLB value. Column 5, lines 13-34. There is no particular limitation on the type of the drug, sparingly water soluble drug is particularly suitable for the composition. See, particularly, column 5, line 53 bridging column 6, line 6.

The primary reference does not teach expressly the employment of the particular combination of surfactants herein.

However, Hauer et al. teaches that cyclosporin is known for its low bioavailability due to its poor solubility. See, particularly, column 3, line 57 bridging column 4, line 44. Hauer also teach that the surfactants with various HLB values employed herein are known to be useful in cyclosporin composition. See, particularly, the hydrophilic surfactants and lipophilic surfactants in columns 9-12. The cyclosporin may be cyclosporin A or cyclosporin G (see, column 3, lines 4-15, column 24, line 67 to column 25, line 3). Hauer expressly teach the employment of combination of hydrophilic surfactant and hydrophobic surfactant. See, column 9, lines 40-48 and examples 1.6-1.10 in column 26.

Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed the invention was made, to employ the particular combination of surfactants herein with a sparingly soluble pharmaceutical agent, such as cyclosporin A or G in the composition of Akiyama

A person of ordinary skill in the art would have been motivated to employ cyclosporin and the surfactants herein in the composition of Akiyama because cyclosporins are known sparing soluble drug and the surfactants herein are known to be useful with sparingly soluble pharmaceutical agents, such as cyclosporin. Further, polyglycerol esters as lipophilic surfactants are old and well-known. See, e.g., Reggio et al. column 2, lines 2-9. The employment of those particular surfactants herein is seen to be a selection from amongst equally suitable material and as such obvious. Ex parte Winters 11 USPQ 2nd 1387 (at 1388), absent evidence to the contrary. Finally, preparing a pharmaceutical composition by simply mixing all the ingredients, which are obvious to one of ordinary skill, is within the skill of the artisan, and would be prima facie obvious.

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3. Claims 23-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hauer et al. (U.S. Patent 5,342,625 AL) in view further view of Reggio et al. (US 4,379,169).

Hauer et al. teach a cyclosporin composition comprising cyclosporins, an oil, a hydrophilic surfactant (HLB>10) and lipophilic surfactant (HLB<10). See columns 9-12, particularly, column 9, lines 40-47 examples 1.6-1.10 on column 26-27. Hauer et al specifically teach “Especially suitable surfactant/co-surfactant combination are hydrophilic /lipophilic surfactant combinations,” (col. 12, lines 35-41). Hauer also teaches that the surfactants herein may function as additional carrier and solvents (col. 12, lines 42-48).

Hauer et al. does not teach expressly the particular combination of surfactants herein. However, Hauer teaches sorbitan esters are similarly useful as lipophilic surfactants. See, particularly, column 12, lines 16-50. Further, polyglycerol esters as lipophilic surfactants are old and well-known. See, e.g., Reggio et al. column 2, lines 2-9.

Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the claimed invention was made to employ those particular combination of surfactants herein with a sparingly soluble pharmaceutical agent, such as cyclosporin because it is known in the art to employ a combination of lipophilic surfactant and hydrophilic surfactant for sparingly soluble pharmaceutical agents, such as cyclosporin. The employment of those particular surfactants herein is seen to be a selection from amongst equally suitable material and as such obvious. Ex parte Winters 11 USPQ 2nd 1387 (at 1388), absent evidence to the contrary. Finally, preparing a pharmaceutical composition by simply mixing all the ingredients, which are obvious to one of ordinary skill, is within the skill of the artisan, and would be prima facie obvious.

Response to the Arguments

Applicants' amendments and remarks submitted July 15, 2003 have been fully considered, but are not persuasive for reasons discussed below.

4. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Particularly, Akiyama et al. teaches a pharmaceutical composition particularly suitable for water sparingly soluble active agent comprising an oil, and surfactants, which may be optimized according to the active ingredient. Hauer teaches cyclosporin composition is particularly known to be formulated with a combination of hydrophilic and lipophilic surfactants. There for it would have been obvious to formulate a cyclosporin formulation according to Akiyama by properly employing a combination of surfactants as suggested by Hauer. Even Akiyama does not expressly state that the employment of surfactant is for increasing solubility of the active ingredients, Akiyama do suggest optimizing the employment of surfactants accordingly. Take the cited references as whole, the employment of a combination of surfactants in cyclosporin composition is obvious. Reggio is cited to show the fact that the polyglycerol esters are old and well-known surfactants.

5. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5

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USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the teaching, suggestion or motivation is found both in the prior art and in the knowledge generally available to one of ordinary skill in the art. Particularly, "microemulsion preconcentrate" is not meaning a non-solid composition. See the definition of "microemulsion preconcentrate" column 5, lines 58-61. Therefore, it would have been obvious to combine these references as discussed above. The remarks regarding Hauer's teaching is improper. Particularly, as discussed above, Hauer also teaches the employment of a combination of hydrophilic and lipophilic surfactants, which is what is claimed herein.


6. The rejection over Hahn et al. is herein withdrawn to simplify the issues in the office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shengjun Wang, Ph.D. whose telephone number is (703) 308-4554. The examiner can normally be reached on Monday-Friday from 8:30 to 5:00.

7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, can be reached on (703) 305-1877. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Examiner



Shengjun Wang
September 16, 2003